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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,428	12/31/2003	Derek J. Daw	PA094-US	1761
27405	7590	03/31/2005	EXAMINER	
THEROX, INC. 2400 MICHELSON DRIVE IRVINE, CA 92612			RAEVIS, ROBERT R	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/750,428	Applicant(s) DAW ET AL.	
	Examiner Robert R. Raevis	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-11-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claims 1 and 14, what single "material" (line 2 from last of claims 1 and 14) has a "plurality" (line 2 from bottom of claims 1 and 14) of viscosity values at the same time? Is the same material treated in some fashion to change the viscosity (which would likely result in a different material), or are different materials used to vary the viscosity of the fluid employed in the system. At present, it is even unclear, as "materials" (p. 68, line 14) seems to suggest different materials, and yet "varying" (p. 68, line 14) seems to suggest the same material. **Which ever it might be, please provide a showing of support for either of the two possibilities.**

As to claim 1, is the "material" a structural limitation (i.e. a part of the "system")? After all, the claim calls for a conduit "adapted to pass a flow material" (line 3), and the claim never seems to clearly refer to the "flow material" as a positive limitation. The Remarks seem to suggest that the "material" is a limitation, but that is not expressly so in the "system" claim. (Note: The "material" is a positive limitation in the method claims.)

Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, 14, "flow material is capable of having a plurality of material viscosities" (italics added, last two lines of each claim) is not consistent with the originally filed disclosure. After all, there does not appear to be a —single—material that has "different" viscosities. Contrast the quoted passage with "Flow materials 1112 of varying viscosity" (highlighting added, p. 68, line 14), which (more likely) suggests that the invention employs different materials, and that each of the different materials has a different viscosity.

Claims 1, 2, 11-13, 3-5, 8, 9, 14, 15, 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Gilcher et al or Natwick et al, and further in view of Kline-Schoder et al.

Gilcher (col. 4, lines 35-45) and Natwick et al (col. 2, lines 5-10) teach that bubble detectors may be calibrated to respond to particular size; but do not provide particulars of calibration device to provide a standard, and do not refer to different viscosities.

As to claims 1, 3, 4, 14, 15, 18, 22, it would have been obvious to employ Kline's system of Figure 13 to provide a calibration reference for either Gilcher or Natwick because Kline teaches that a system employing conduit 12, peristaltic pump 118, and bubble forming device ("GLASS TUBE" and "WATER JET") will produce bubbles having a particular size and number for testing. In addition, as to claim 1, either (1) this claim is

directed to an apparatus, and that apparatus has only 1 flow material (and the phrase "plurality of material viscosities" is simply in error for "112' reasons cited above, or (2) this claim is directed to an apparatus, and that apparatus has only 1 flow material in use, and any material is "capable" (line 2 from bottom of claim 1) of having a plurality of different viscosities over a tiny range of temperature variation around room temperature. In addition, as to claim 14, either (1) this method is employing only 1 flow material (and the phrase "plurality of material viscosities" is simply in error for "112' reasons cited above, or (2) this claim is directed to a method, and that method has only 1 flow material in use, and any material is "capable" (line 2 from bottom of claim 14) of having a plurality of different viscosities over a tiny range of temperature variation around room temperature.

As to claim 17, use of compressed air in Klein is suggestive of use of an air pump to allow for use of environmental air as a source.

As to claims 2,11, note (col. 16, lines 13-17) that Kline refers to use of a second sensor to test a first.

As to claims 12,13, it would have been obvious to record bubble sensor data for subsequent analysis. In addition, note Kline's camera type measuring device (col. 16, line 15) that is used to confirm measurements of an UT instrument.

As to claims 5,8, note the Kline employs a block that holds the "GLASS TUBE".

As to claims 9,19, if the "WATER TANK" has no lid, the open top provides for damping between the pump 118 and bubbles exiting "GLASS TUBE". In the alternative,

if there is a sealed lid, there is gas in the upper portion of the "TANK" which provides damping.

As to claims 20,21, note that Kline employs a UT measurement (col. 16, line 14), and those UT measurements are confirmed with video microscopy. UT measurements employ many signals, both transmitting and receiving.

As to claim 23, calibration requires comparing. As to claims 24,28, particle detectors are known to calibration factors to calculate a final size, suggestive of calibrating by determining such a factor.

As to claim 25, note the various flows on col. 16, lines 10-13 of Kline.

As to claims 26,27, note that bubble size and number are controlled on col. 16, lines 4-7 of Kline.

Regarding Applicant's **REMARKS/ARGUMENTS**, please consider the following:

The Undersigned is unclear whether the invention employs a single liquid (whose viscosity somehow varies) or different liquids that had different viscosities. If it is the later, the apparatus claim does not employ two different liquids, and the method claim does not clearly call for selecting from a plurality of different liquids.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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